

SQL Fundament Exercises 1

1. SELECT statement

SELECT (*)

FROM employees-db;

id	first-name	last-name	department	salary	hire-date	city
1	John	Doe	IT	55 000	2018-06-15	NY
2	Jane	Smith	HR	48 000	2019-07-20	Chicago
3	Mike	Johnson	Finance	60 000	2017-09-30	LA
4	Sarah	Brown	IT	53 000	2021-03-25	NY
5	David	White	Marketing	52 000	2016-04-10	San Fran
6	Emily	Davis	IT	62 000	2015-02-14	Chicago
7	Robert	Wilson	Finance	59 000	2019-10-01	Houston
8	Jessica	Moore	HR	51 000	2018-05-22	LA
9	Daniel	Clark	Marketing	53 000	2022-06-01	Chicago
10	Laura	Hall	IT	50 000	2020-08-10	San Fran

2. SELECT DISTINCT

SELECT DISTINCT departments

FROM employees-table db;

department
IT
HR
Marketing
Finance

3. SELECT first-name,
last-name
FROM employees-db
ORDER BY salary DESC;

first-name	last-name	salary
Emily	Davis	62000
Mike	Johnson	60000
Robert	Wilson	59000
John	Doe	55000
Daniel	Clark	53000
Sarah	Brown	53000
David	White	52000
Jessica	Moore	51000
Laura	Hall	50000
Jane	Smith	48000

4. SELECT *
FROM employees
LIMIT top 5 highest-paid employees;

id	first-name	last-name	department	salary	hire-date	city
6	Emily	Davis	IT	62000	2015-02-14	Chicago
3	Mike	Johnson	Finance	60000	2017-09-30	LA
7	Robert	Wilson	Finance	59000	2019-10-01	Houston
1	John	Doe	IT	55000	2018-06-15	NY
9	Daniel	Clark	Marketing	53000	2020-06-01	Chicago
4	Sarah	Brown	IT	53000	2021-03-25	NY

5. SELECT *

FROM employees_db

WHERE department IN ('IT');

id	first_name	last_name	department	salary	hire-date	city
1	John	Doe	IT	55 000	2018-06-15	NY
4	Sarah	Brown	IT	53 000	2021-03-25	NY
6	Emily	Davis	IT	62 000	2015-02-14	Chicago
10	Laura	Hall	IT	50 000	2020-08-10	San Fran

6. SELECT *

FROM employees_db

WHERE department = 'Finance' AND salary > 58 000

id	first_name	last_name	department	salary	hire-date	city
3	Mike	Johnson	Finance	60 000	2017-09-30	LA
7	Robert	Wilson	Finance	59 000	2019-10-01	Houston

7. SELECT first_name,

last_name,

department

FROM employees

WHERE department = 'HR' OR department = 'Marketing'

first_name	last_name	department
Jane	Smith	HR
Jessica	Moore	HR
David	White	Marketing

8. SELECT first-name,
 ~~FROM~~ last-name,
 department
 FROM employees
 WHERE NOT department = 'IT';

first-name	last-name	department
Jane	Smith	HR
Mike	Johnson	Finance

9. SELECT first-name,
 last-name,
 department
 FROM employees
 WHERE department IN ('HR', 'IT', 'Finance');

first-name	last-name	department
John	Doe	IT
Jane	Smith	HR
Robert	Wilson	Finance
Mike	Johnson	Finance

10. SELECT first-name,
 last-name,
 department,
 salary,
 city
 FROM employees
 WHERE department = 'IT' AND salary > 50000 AND city = 'NY';

first-name	last-name	department	salary	city
John	Doe	IT	55 000	New York

11. **SELECT** first-name,
last-name,
department,
salary
FROM employees
WHERE (department = 'Finance' **OR** department = 'Marketing') **AND** salary > 52 000
ORDER BY salary **DESC**;

12. **SELECT DISTINCT** city
FROM employees
WHERE department **NOT IN** ('IT', 'HR');

13. **SELECT** first-name,
last-name,
department,
salary,
hire-date
FROM employees
WHERE department **!=** 'Finance'

first-name	last-name	department	salary	hire-date
John	Doe	IT	55 000	2018-06-15
Jane	Smith	HR	48 000	2019-07-20
Sarah	Brown	IT	53 000	2021-03-25
David	White	Marketing	52 000	2016-04-10
Emily	Davis	IT	62 000	2015-02-14
Jessica	Moore	HR	51 000	2018-05-20
Daniel Daniel	Claire	Marketing	53 000	2022-06-01
Laura	Hall	IT	50 000	2020-05-10

14. **SELECT** first-name,
last-name,
department,
city
FROM employees
WHERE city **IN** ('Chicago', 'Los Angeles') **AND** department **IN** ('IT', 'Marketing')
LIMIT 3;

14. ~~SELECT~~ first-name

first-name	last-name	department	city
Emily	Davis	IT	Chicago
Daniel	Clark	Marketing	Chicago

15. **SELECT** first-name,
last-name,
department,
salary,
city
FROM employees
WHERE (department = 'IT' **OR** department = 'Finance') **AND** city != 'San Francisco'
AND salary > 55000
ORDER BY salary **DESC**
LIMIT 5;

first-name	last-name	department	salary	city
Mike	Johnson	Finance	60000	Los Angeles
Emily	Davis	IT	62000	Chicago
Robert	Wilson	Finance	59000	Houston